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UNITED STATES DEPARTMENT OF AGRICULTURE  
Soil Conservation Service

TIMELY COMPLETION OF AN ADEQUATE  
ARKANSAS-WHITE-RED RIVER BASINS REPORT  
by John A. Short

August 19, 1953.  
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INTRODUCTION

The following report on the Arkansas-White-Red River Basins study was prepared in response to a request on the subject in a memorandum dated August 4, 1953 from Carl B. Brown, Assistant Chief of Operations, Soil Conservation Service. The report was prepared with the advice and assistance of other SCS personnel and representatives of other Department of Agriculture agencies in the Tulsa AIR Office. It is intended to explicitly answer the questions raised and make the recommendations called for in letter dated July 29, 1953, to the Secretary of Agriculture from the Assistant Director, Bureau of the Budget, on the subject. Therefore, the report was prepared for this specific purpose and under the conditions that currently prevail with respect to the Arkansas-White-Red Basins study. It is not the type of report that might be prepared on river basin planning per se, although it would prove helpful in such an endeavor.

The report is divided into four parts in order to cover information called for in the letter previously referred to. Part I consists of progress on the AIR study to date. Part II is progress to be expected under the conditions of present "ground rules, methods, and procedures." Part III is a discussion of matters which hinder preparation of an adequate AIR report. Part IV is recommended changes in ground rules, methods, and procedures. Parts I and II of the report are divided into three sections, dealing with the subject matter in the three guidelines set forth in the letter to the Secretary from the Assistant Director. These guidelines are:

- A. The final report should reflect a genuine integration of the respective contributions of the various federal agencies and of the States. There should be unified treatment of essential background information and assumptions pertaining to the resources of the basins.
- B. The report should contain recommendations for the authorization of specific projects when such projects are of high priority and are supported by sufficient justification.
- C. The report should recommend modification or elimination of projects already authorized by Congress but not yet constructed, if the survey indicates such changes to be desirable.

Hereinafter, the guidelines stated in the preceding paragraph will be referred to as guidelines A, B and C.



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EXECUTIVE OFFICE OF THE PRESIDENT  
Bureau of the Budget  
Washington

879639

July 29, 1953

My dear Mr. Secretary:

In connection with the preparation and revision of the President's budget for the 1954 fiscal year the Bureau of the Budget found it necessary to review the progress of the interagency survey of the Arkansas-White and Red River Basins. As the result of this review the time for the completion of the survey report was extended to June 30, 1955. Funds for the continuation of survey and planning operations were also approved and incorporated in the President's budget.

Facts assembled during the Budget review, the questions raised by the Department of the Interior in the March 2, 1953, meeting of the Federal Interagency River Basin Committee, and other information received by this office led the Bureau of the Budget to bring the Arkansas-White-Red Basins survey and certain problems relating to it to the attention of the President. The President has subsequently directed the Bureau of the Budget to consult with the participating departments and agencies with a view to ascertaining what must be done to assure the timely completion of an adequate survey report. The President also indicated that he was prepared to make adjustments in the survey organization if such changes prove necessary to bring the effort to a successful conclusion.

Specifically, the President approved three guidelines to support and supplement the policies under which the Arkansas-White-Red Basins survey is being conducted. These three guidelines are the following:

1. The final report should reflect a genuine integration of the respective contributions of the various Federal agencies and of the States. There should be unified treatment of essential background information and assumptions pertaining to the resources of the basins.
2. The report should contain recommendations for the authorization of specific projects when such projects are of high priority and are supported by sufficient justification.
3. The report should recommend modification or elimination of projects already authorized by Congress but not yet constructed, if the survey indicates such changes to be desirable.



It is requested that as soon as practicable but in no event later than September 1, 1953, you advise this office of (1) the progress which has been and is expected to be made in adhering to the above guidelines in the development of comprehensive plans and the preparation of the survey report, and (2) any changes in existing ground rules, methods or organization which in your judgment would facilitate compliance with the President's instructions or lead to other improvements. Your comments should be made as explicit as possible and should reflect current information as to what is taking place in the basins.

The Bureau of the Budget appreciates the difficulties under which the Survey has been conducted. The preparation of comprehensive plans for a group of river basins covering 177 million acres in eight States would not be an easy task under the most favorable circumstances. To try to do this job by means of an interagency committee in the face of important differences in the interests, internal policies, legislative charters, and work methods of the participants has required no little enterprise and perseverance. The President's desire for the best possible report should not, therefore, be regarded as critical of the role played by any department or agency. This administration does, however, need to be assured that the substantial past and contemplated expenditures for the survey will produce commensurate benefits. Consequently, a conscientious re-examination of this three-year-old interagency effort and the prompt resolution of any outstanding problems is particularly in order at this time.

Sincerely yours,

/s/ Rowland Hughes  
Assistant Director

The Honorable

The Secretary of Agriculture



SUMMARY OF RECOMMENDATIONS FOR REORGANIZATION OF THE  
ARKANSAS WHITE RED RIVER BASINS STUDY

1. A Commission should be appointed by the President to be responsible for continuing and completing the AWR study. The chairman of this Commission would also become chairman of AWRBIAC which would remain intact as a liaison unit and to assist the Commission as requested. The position of State representation on AWRBIAC would need to be restated, however.
2. The Commission should have an adequate technical staff of its own choosing and responsible to no other interest. This staff, under immediate direction of an executive director, should be responsible for carrying out technical review and coordinating functions and for all technical liaison with state and federal agency personnel.
3. At the outset, the Commission should have explicit Presidential direction as to the scope and objectives of its full assignment. It should know the specific uses to be made of its findings. And it should be clear as to the degree of refinement and integration expected in its final report product. From this charge, it should be able to obtain a clear concept of the format and content of its report and to devise its work and report outlines accordingly.
4. The President, in consultation with the Commission, and in light of the current situation in AWR, should provide a statement of working policy to be followed. In broad terms, this statement should express national needs for quantities of goods and services, now and at specified future dates. It should indicate the nationally chosen alternatives for obtaining production for those needs. Then, considering generally the economic productive capacity of the AWR Basins area in fair perspective with all other defined areas in the nation, and reasonably within bounds of nationally chosen alternatives, the statement should provide the best guides it can to the Commission in its efforts to gear developments in this area to the National need, while recognizing essential regional and local interests. The fundamental objective of this statement would be to fix a working definition of economic need, a definition which could be applied uniformly and equitably in regional planning as a base for decisions on timing, intensity, and final economic value of developments under consideration.
5. The initial Presidential directive should also establish beyond doubt the authorities of the Commission for independent decision and action and provide suitable channels for continuing national direction, for settlement of appeals and for emergency fund requests.
6. As soon as possible, the Commission should submit consolidated budget recommendations based on its own determination of time and funds required for the Commission to complete its study, and for the various federal agencies to carry out their respective assignments.



## 2 - Summary of Recommendations for Reorganization of AWR

7. In operation, the Commission would need to take from 6 to 12 months time to review and evaluate agency-held data for accuracy and sufficiency. This review necessarily would extend to agency proposals supported by the data whether in plan formulation stage, already submitted, or authorized. To move into this task without delay, the Commission would need to obtain Presidential agreement on interim policies and procedures to be followed during the period while the Commission, through its technical staff, would be assimilating the data and proposals now resting with AWRBIAC's participating agencies. The forces now assigned to AWRBIAC would need to be at the Commission's call throughout this period and possibly on a continuing basis beyond that time.
8. During the interim review and analysis period, the Commission should be able to arrive at a number of interim decisions which would let some advance work proceed:
  - a. Since the Commission will recognize at the beginning that there has been little uniformity between AWRBIAC agencies in methods of collecting, compiling, interpreting or using basic data, largely agricultural because most justifications rely on agricultural benefits, it will be obliged to develop some uniformity in data presentations, interpretations and uses as a preliminary to sound evaluation of much planning that already has been done. If the Commission can establish a reasonably uniform data base for the comprehensive effort, the interim forces at its disposal can begin reworking to that base in intelligently chosen areas of priority.
  - b. As an early operation, the Commission will need to draw out of the mass of agency proposals those areas which appear to be first in order of importance or urgency in the public interest on the basis of the policy and needs outlined by the President. Naturally, these selected areas would have to be accepted tentatively as being key parts of any comprehensive development plan for the AWR area. Establishment of such priorities would permit the Commission to concentrate its first advance work on pilot study areas and to bring into play its own ground rules for improving previous agency planning to the comprehensive base. In addition, work under these priorities would demonstrate, under good timing, the methods for integrating valuable but uncoordinated agency planning into an improved, balanced plan for area development. Finally, it would bring the most troublesome agency-line problems into sharp focus immediately.
  - c. The authorized and previously recommended ("Proviso Clause") projects would logically be reviewed during the process of conducting area studies. Since none of these developments has been fully exposed for AWRBIAC review and none prepared under the comprehensive base set up for the AWR Basins study, one of the Commission's early tasks would be to establish a working base for their review or restudy.



### 3 - Summary of Recommendations for Reorganization of AWR

Probably the most critical of all operating needs is to obtain an open review of all proviso clause projects and a full restudy of some. No truly integrated plan can be prepared without this action. The current assumption that such projects are "in place" denies access to the means for integration and in effect requires endorsement of the projects, even though none were jointly devised and some are under challenge from the standpoint of economic need.

- d. Before the Commission can complete its initial technical evaluation of agency data and proposals it will have to obtain resolution or clear authority to resolve a number of open policy problems, mostly connected with plan formulation processes. A reasonable degree of uniformity is yet to be achieved in policies for project and program evaluation, reimbursement or cost sharing, and cost allocation. The principal features of desirable policies in these fields may be refined out of the "Green Book"\*, Budget Bureau Circular No. A47, and certain entries in AWRBIAC minutes. Sections of these cited policy guides have been adopted by AWRBIAC, but with agency reservations. Agency interpretations and practices have worked to void uniform application even of the agreed to policies.
9. Unless the study is reorganized along the lines suggested, or along similar lines designed to solve the problems outlined in this report, the Department of Agriculture respectfully requests permission to prepare a separate report covering its work in AWR, as is authorized in Paragraph 1, Section 205 of the 1950 Flood Control Act, and thereupon be released from further responsibilities in connection with AWRBIAC.

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\* "Proposed Practices for Economic Analysis of River Basin Projects," by Subcommittee on Benefits and Costs, Federal Inter-Agency River Basin Committee, May 1950.



PART I  
PROGRESS TO DATE IN AWR STUDY

GENERAL

All Federal and state agencies participating in the AWR study have spent years in collecting data, compiling needs, planning to meet those needs, and in carrying out action programs designed to meet those needs. Therefore, a large body of material was available in various files and reports when the interagency effort was initiated. However, it should be recognized that this body of material resulted from individual agency effort by and large and was gathered, among other things, to provide justification for individual agency programs. It would be expected to contain some duplication, overlapping and conflict. It would be suspected also of being incomplete in areas not covered by going agency programs as well as in aspects which had been inadequately financed. It would be questioned further on the grounds of agency bias and distortion even to the point in some instances of inaccuracy. Perhaps one of the major mistakes made in the interagency study was failure on the part of the Corps of Engineers and Bureau of Reclamation, who have the leadership for the water use and control functions, to recognize and provide for adequate coordination and consideration of this existing body of material at an early stage of the study. Rather, efforts for the first two years were directed primarily toward compiling new data and re-arranging old data on an individual agency basis in the traditional manner. The chairman agency of the AWR effort must assume a major share of the responsibility for this mistake.

To sum up in general the progress to date, it can be said that a large body of material was available to AWRBIAC when the study began and some additional material has been collected during the course of the study. However, little progress has been made in considering the material in accordance with guidelines A, B and C.

Guideline A

The greatest failure of AWRBIAC to effect "genuine integration" and give "unified treatment" to the body of material available lies in the phases of "water use and control." These include the functions of navigation, flood control and waterflow retardation, irrigation, drainage, and water supply. The difficulties lie primarily in the fields of economics and physical relationships and arise from lack of national policy and procedure as well as absence of adequate governmental organization and administrative machinery to handle the problem. No way has been found in AWRBIAC to give unified consideration to such matters as alternative methods of increasing agricultural production with a view to selecting the most desirable alternatives in view of regional and national needs. Little consideration has been given to meeting water supply needs by other than Government built multiple purpose projects. Virtually no consideration has been given to the problem of flood plain zoning as a means of meeting some of the flood control needs. These are but a few of the broader aspects of "unified consideration" that have been neglected.

There are more detailed and technical physical and economic relationships that should be pointed out. An important example is the relationship of land treatment, small waterflow retardation structures, and major flood control



works. Recognized plan formulation procedures demand that these relationships be recognized and applied. The AWRBIAC has adopted a plan formulation procedure which would provide for this. The adopted procedure has been ignored almost completely, particularly by the Corps of Engineers.

Valid plan formulation requires that physical relationships such as hydrology be worked out in order that economic relationships can be determined and applied. Each element of a plan would be adopted only after it was determined that the incremental benefits it provided would equal or exceed the incremental costs incurred by adding the element. Thus, in a properly formulated plan for a particular watershed, it may develop that the best plan would be (1) that land treatment alone would provide all the reduction of flood damages economically feasible, (2) that small waterflow retardation structures were economical to supplement the land treatment, (3) that a large flood control structure was feasible and desirable, (4) that a certain well formulated combination of small structures and a large structure was required, or (5) that flood plain zoning with or without control works was the answer. This approach to plan formulation has been adopted but not applied in AWR.

Although it appears that agreement can be reached in general terms, no specific coordination has been effected in accordance with recognized economic principles and plan formulation procedures. Some agencies (for example, Corps of Engineers) has insisted on ignoring and deferring action on the necessary coordination and integration procedures. The Department of Agriculture has repeatedly protested this action during the past two and a half years but the protests have been ignored. For example -- as early as December 20, 1951, the Department of Agriculture presented to the representatives of other Departments and the State Coordinator of Oklahoma an analysis of alternate plans for Bitter Creek, a tributary of the Washita River, Oklahoma. The analysis was made to show the effects of the SCS plan of waterflow retardation structures and the proposed Corps of Engineers structures. When the data were presented at the meeting, the Tulsa District Corps of Engineers representative and State of Oklahoma representative insisted that the presentation of this type of material was not in order and that the time for studies of this kind would come later. The minutes of the meeting, Appendix A, Informal Session of AWRBIAC, December 21 and 22, 1951, show the following: "Discussion of Economic analysis of a Tributary Soil Conservation Service Retardation Reservoir Plan as compared to a suggested Corps of Engineer structure. This discussion was not considered pertinent to the subject under discussion at this meeting and consequently no report on that discussion is submitted at this time." No additional study has been given the data presented since that date. In fact, at the same meeting on December 20, 1951, it was agreed by some of the representatives present that the Bitter Creek Reservoir of the Corps of Engineers would be eliminated from the plan and that the waterflow retardation structures of the Department of Agriculture would be included in the plan. This decision was reached on the basis of the assumption that Bitter Creek Reservoir would not be needed for water supply since the reservoir on Cobb Creek could be used as a water supply reservoir. The decision was made without consideration of data and information presented at the meeting. The decision was not made, as claimed by the Corps of Engineers, on the basis of the relative merits of the alternatives for flood protection. Neither has this been the case in any other area. In some



instances the Department of Agriculture has made adjustments in its program to fit in with Corps of Engineers proposals but never has the Corps made adjustments of its projects or considered alternatives for them.

The Minutes of Informal Meeting of AWRBIAC on December 21 and 22, 1951, also show that the Committee recognized that job in the Washita Basin was not completed and that further analysis of the economic aspects would be required. The following statement appears on page 4 of the minutes:

"The plan which has been presented by the State Coordinator requires further analysis of the economic aspects to determine:

- (1) The economic feasibility of the various projects
- (2) The effect of waterflow retardation and soil erosion prevention measures on maximum run-off and the resultant effect on storage capacity of downstream flood control structures.
- (3) The effect of waterflow retardation and soil erosion measures on minimum flows and to determine the irrigation potentials of any Conservation storage provided in structures proposed by the Soil Conservation Service.

"The best solution for a basin will first be determined from a physical and engineering standpoint. Physical features are relatively static. Standards of economic evaluation are subject to change. After formulation of a preliminary plan based on physical features and needs, economic evaluation should follow. The desires of the States as presented by the Governor's representatives will be a determining factor in the recommendations for authorization and for construction of Category I projects in the report.

"Where the need and desires of the State can be fulfilled by several approximately equal alternate plans, the State Coordinator will suggest which plan will be selected to accomplish the desired results.

"Benefits from the several features of a plan will be evaluated by uniform methods in accordance with adopted interim procedure and will be determined and integrated at field level by the participating agencies on the basis of the specific values of each feature to the over-all benefit from the coordinated plan."

The Department agrees generally in the above and has made many efforts in its cooperative studies with the Corps of Engineers to recognize both the physical and economic aspects in coordinating and integrating the plans of the various agencies.

Field people of the Soil Conservation Service have been intimately involved with attempts to obtain technically sound integration and coordination. The following is a quotation from a memorandum submitted by one of the regional offices of the Soil Conservation Service:

"Presently authorized Corps of Engineers and Bureau of Reclamation Projects in the AWR Basins were planned and evaluated without consideration of the physical and economic effects which "going" and recommended land



treatment measures and flood prevention improvements may be expected to produce. The proposed additional Corps of Engineers and Bureau of Reclamation projects which were considered in the development of the Possible Solutions statements for the various priority areas were planned and evaluated in the same manner. Furthermore, such adjustments as were made for 'coordination' of agency recommendations of projects or program elements in developing Possible Solutions statements were 'judgment' adjustments which were made because the pertinent physical and economic data essential to a sound determination are not available.

"Because of these facts, it is obvious that the current AWR procedures cannot result in a coordinated and integrated plan of improvement, and whatever is presented in the report should not be termed as such. Therefore, no projects should be recommended for authorization in such a report.

"The FIARBC had adopted sound and workable principles and procedures for the formulation and evaluation of watershed programs. They are based on the 'incremental' approach (as described in the 'green book') and involve the consideration of projects or program elements in their natural order and the evaluation of each added increment -- project or program element -- on the basis of added costs and benefits.

"We believe that this is the only sound and logical approach to the development of an integrated program for a basin. Under present AWR procedures the Possible Solutions which are being developed represent merely a 'stacking' or 'layering' of agency recommendations, with eliminations (not necessarily on the basis of merit) of certain projects or program elements in cases of conflicting recommendations, and statements of alternative solutions in other cases. Since it is obviously impossible to achieve actual integration by these procedures, we do not believe that any plan developed by such means can be considered as fulfilling the obligation assigned by the President's Directive establishing the AWRBIAC.

"It may take some time for our Department to determine what recommendations it may wish to make as to the future course of the AWRBIAC. However, for the present, we believe that the Soil Conservation Service and the Department of Agriculture should make it clear that we do not believe that the Possible Solutions Statements, whatever may be developed from them, can be considered as representing an integrated or comprehensive plan for the AWR Basins."

The material quoted above appears to reflect rather accurately the current views of technical personnel of the Department of Agriculture who have been engaged in attempting to coordinate water use and control activities of AWRBIAC. Although there are limited areas where a measure of success has been achieved.

Since AWRBIAC meets only once a month and since the field administrators do not have many opportunities to meet with AWRBIAC members, considerable misunderstanding develops. Important plans, policies, and procedures do not reach the administrators and much confusion exists. Closer working relationships are essential in doing an efficient and effective job of planning. A good example of this difficulty in the AWR is the matter of hydrologic coordination among agencies in the field. In the beginning AWRBIAC established work groups on each function being studied. It was assumed that the work groups would accomplish, among other things, hydrologic coordination at least to the



extent required for their particular function. Later the State coordination procedure was established and it was thought that surely hydrologic coordination would be accomplished under that procedure. Next the Committee established the Hydrologic Sub-group for the purpose of assuring that hydrologic coordination would be effected. In February, 1952, when it was found that hydrologic coordination was not being accomplished in the field, the special Pond Creek study was established in an effort to work out acceptable procedures for hydrologic coordination. Then Water Use and Control Groups were established with the hope that, among other things, they would effect hydrologic coordination. To date there is little evidence of hydrologic coordination being accomplished in the field. (See report of the Hydrologic Subgroup dated May 13, 1953 - Appendix D, Informal Session 4-53).

The illustration given above is only one of the difficult organizational and procedural snarls with which the AWR study has been beset. They result from a number of circumstances, including misunderstanding and lack of communication between the Committee and the field people, failure on the part of the Committee to lay down specific policies and procedures, and reluctance on the part of the field people to deviate from agency procedures and work on an inter-agency basis.

Varying patterns of agency administration and organization from a personnel and geographic standpoint make it difficult to coordinate the efforts of the several agencies and to develop existing data and information on a comparable basis. Although work groups were set up, they have been stripped of their authority and we now have agency and State plans instead of plans of functional work groups. The Corps of Engineers' geographic pattern of administration is by districts and divisions based on river basins. None of the other twenty odd Federal agencies or the State activities are administered on quite the same geographic basis as the activities of the Corps of Engineers. Persistent efforts in AWR on the part of the Corps to carry on their activities according to their existing patterns of organization has made it difficult for other agencies to work with the Corps. At times the Corps has strongly urged that other agencies follow the Corps pattern when there was no apparent need for it. The Department of Agriculture and Interior have attempted to do the AWR job under regular administration patterns with intra-departmental coordinating mechanisms. This has proved difficult and costly.

Although considerable effort has been placed on developing procedures and policies for coordination of basic agricultural data, hydrology, and economics, it hasn't been possible to establish the criteria in a uniform and understandable manner. It should be recognized that in many instances adequate data for complete coordination is not available. Established agency procedures, and reluctance to depart from these procedures in collecting and compiling basic data has made it difficult and frequently impossible to compare and coordinate basic data among agencies.

The Corps of Engineers maintains that the procedures they use in taking account of negative benefits is in accordance with the "Green Book" and is economically sound. Examination of these procedures has convinced the Department of Agriculture that in some cases at least the Corps' methods are not in accordance with the "Green Book" which was adopted by the AWRBIAC and are not economically sound.



Procedures for requesting and appropriating funds result in lack of balance among functions with respect to the amount of money available for planning purposes. An agency with a vital interest in a particular resource may be unable to participate fully in a study due to fund limitations. The disparity in funds may result in inadequate emphasis upon a particular function in comparison with the emphasis given to other functions. This problem is well illustrated by the difficulty experienced by the Department of Agriculture during fiscal year 1953.

Funds received by the major Federal agencies for fiscal year 1953 for AWR investigations were:

Corps of Engineers	-	\$465,000
Dept. of Interior	-	913,082
Dept. of Commerce	-	268,500
Dept. of Agriculture	-	175,820
Federal Power Comm.	-	55,000

- 1/ - No appropriations specifically identified for AWR work. Bureaus allotted funds from regular appropriations to finance participation.
- 2/ - \$85,000 appropriated for 1953 (GBI); carry-over funds from FY-1952, \$4,820; approx. \$75,000 used from regular funds of SCS; approx. \$11,000 used from regular funds of F.S. Some additional regular funds were used by other agencies of Department of Agriculture. These are not at hand.
- 3/ No specific allocation made by Commission.

Because of lack of funds, sufficient personnel in the Department of Agriculture could not be employed to do an adequate job. In addition, personnel assigned other duties have been assigned AWR responsibilities which has made it difficult for them to do a good job on their regular activities as well as AWR work. The problem of loss of personnel should be recognized - some important key personnel have died and some have been transferred to other positions.

Little definite progress has been made to date in attaining unified treatment of background information and assumptions pertaining to resources. Some attempts have been made along this line, but few of them have met with sufficient success to in any way influence the direction of agency investigations. Subcommittees have been formed, ground rules adopted, and special studies conducted to develop background information and common assumptions, but the rules adopted, results of studies, or agreements reached by subcommittees have been generally accepted and used only when it has been to the direct interest of the agency to do so.

In the latter part of 1950 the Department of Commerce introduced and ANRBIAC adopted the idea of a "Economic Base Survey" which would provide a background of economic information, including "(1) the present over-all economy and its trends in order to determine what the future can be in terms of population, employment, and income, and (2) the problems, opportunities,



and potentialities of the specific economic activities such as agriculture, manufacturing, transportation, etc." The idea was developed further and dates adopted such that the material would be available during the "plan formulation" period. The Department of Commerce became the chairman agency of the endeavor and other agencies were to contribute substantially. The Department of Commerce has spent a good deal of time and funds on the job, and issued some preliminary material, largely forecasts of population. These forecasts have been used to some extent in predicting needs for water supply but aside from this little use has been made of the material that has been compiled; the Department of Commerce has not had the facilities to pursue the task, the other agencies have not contributed as planned, and so consequently the "Economic Base Survey" has not achieved the purpose for which it was intended.

The Corps of Engineers and the Department of Agriculture both have programs for flood damage reduction or prevention. Implicit in the development of a coordinated program for flood damage reduction is that both agencies should "start" from the same base of agricultural conditions and that their procedures should result in comparable estimates of crop damage. This has been recognized in the work outline of the Work Group on Flood Control, Waterflow Retardation and Flood Forecasting. That this common starting point has not been achieved is illustrated by the following representative table, figures for which have been extracted from the most recent reports on the subject.

Analysis of Floodwater Damages in Duplicated Areas -- SCS and C of E.  
Lower Arkansas River in Arkansas

Area	Cropland		Crop Damage		Crop Damage/Acre Cropland	
	SCS	Corps	SCS	Corps	SCS	Corps
Lee Creek	2,439	3,700	34,282	20,060	14.06	5.42
Big Mulberry	1,570	1,900	37,771	5,750	24.06	3.03
Spadra Creek	401	520	1,320	5,850	3.29	11.25
Big Piney	1,873	1,140	38,145	7,650	20.37	6.71
Little Piney	878	620	15,725	3,940	17.91	6.35
Illinois Bayou	2,090	1,270	50,259	14,120	24.05	11.11
Galla Creek	795	1,400	2,616	42,640	3.29	30.46
Dutch Creek	1,284	940	25,756	24,910	20.06	26.50
Chickalah Creek	1,373	1,390	27,533	9,240	20.05	6.65
Spring Creek	349	400	7,006	5,660	20.07	14.15
Cadron Creek	3,592	7,230	11,824	91,070	3.29	12.60
Fourche La Fave	13,442	13,480	32,488	71,850	2.42	5.33
Petit Jean	9,519	15,170	150,600	75,740	15.82	4.99

According to procedures adopted at various times, the Work Group on Flood Control and Waterflow Retardation, the Water Use and Control Group, the Subgroup on Basic Agricultural Data, or the two agencies jointly could be responsible for the reconciliation of these estimates. The proposal has been made that both sets of estimates be placed in the final report. Actually, the problem is extremely complicated and depending upon when the basic data was collected both agencies could be correct. There can be no quick solution of this type of problem but it is certain that a plan can not be correctly



formulated with basic data and estimates varying so widely. It is certain also that there is not now time (assuming completion of the report in 1955) to collect the essential background information on this phase or for methods of unified treatment to be developed and applied.

Agriculture recognized the need for use of uniform and reasonable basic agricultural data in developing plans and programs involving agricultural resources. Basic agricultural data teams were organized within the Department to make reviews of agricultural data used by the various planning agencies. Because of insufficient funds and a lack of a real desire of all agencies to cooperate, this coordination effort failed. Another attempt was made in the Pond Creek study to agree upon uniform and reasonable basic agricultural data in the specific area under study. Actual field checks were made by some of the staff assigned to this study. However, the various agencies would not agree to the recommendations of the technicians and this effort also failed. A third attempt was made to coordinate basic agricultural data in December 1952 when the Basic Agricultural Data Subgroup was organized. This subgroup has reviewed the basic agricultural data for selected projects in the State of Texas. However, progress has been far from adequate due to a failure of the Inter-Agency Committee to agree upon what projects should be reviewed. The Subgroup has also been hampered by a failure of agencies to supply adequate data for making the review. (The Corps of Engineers supplied data for only one of six projects requested). It remains to be seen whether agencies will follow recommendations of the subgroup.

A good example of the flagrant violation of any recognized economic or plan formulation procedure is found in Appendix A of the Minutes of the Informal Meeting of the AWRIAC on December 21-22, 1951. The following is quoted from the minutes as a statement of Colonel Herb, then District Engineer, Tulsa District, Corps of Engineers. The statement was made concerning justification of conservation storage for future use in reservoirs. The statement is: "It has been the policy of the Tulsa District to include an allocation of from 10 to 20 percent of the total storage in all reservoir projects being studied for future use, and to justify this storage on the basis that the benefits are equal to the annual carrying charges for its pro rata part of the storage." Presumably all authorized reservoirs in the Tulsa District were planned in accordance with that criterion. So far as is known, the practice is still being followed under the AWRIAC. When it was pointed out that the practice was not in accordance with plan formulation procedures adopted by AWRIAC and was in violation of Budget Bureau Circular A-47, an employee of the Tulsa District replied that the practice would be continued although it might be done in such a way that it would not be detected. It might be well to point out a few of the fallacies of the criterion stated above in planning. It assumes that there will be a need for water supply from every reservoir planned, which is unlikely. It assumes an arbitrary benefit to offset public costs without consideration of possible cheaper alternative sources of water supply. It fails to provide for a discounting of benefits which may accrue many years after construction of a reservoir. It can add unnecessary cost to the construction of a reservoir. It does not recognize that the water may be appropriated for some other purpose under State law. It takes no account of the quantity and quality of the water in regard to the purposes for which it is expected to serve.



A task group was set up to analyze and explore the possibilities of applying the procedures outlined in Budget Bureau Circular A-47. A report presenting an interpretation of the various sections of the report was prepared and presented to the AWRBIAC. However, the Committee received the report only as information and no action was taken on its implementation. Agency representatives, particularly the Department of the Interior, were unwilling to take a stand as to whether they would abide by the Circular's directives. Many questions were raised over interpretation of various sections of the Circular and the task group was directed to try to reconcile these differences of interpretation. However, this effort failed because of the policy laid down by the various agencies which prevented task group members from basing their recommendations on technical rather than agency considerations.

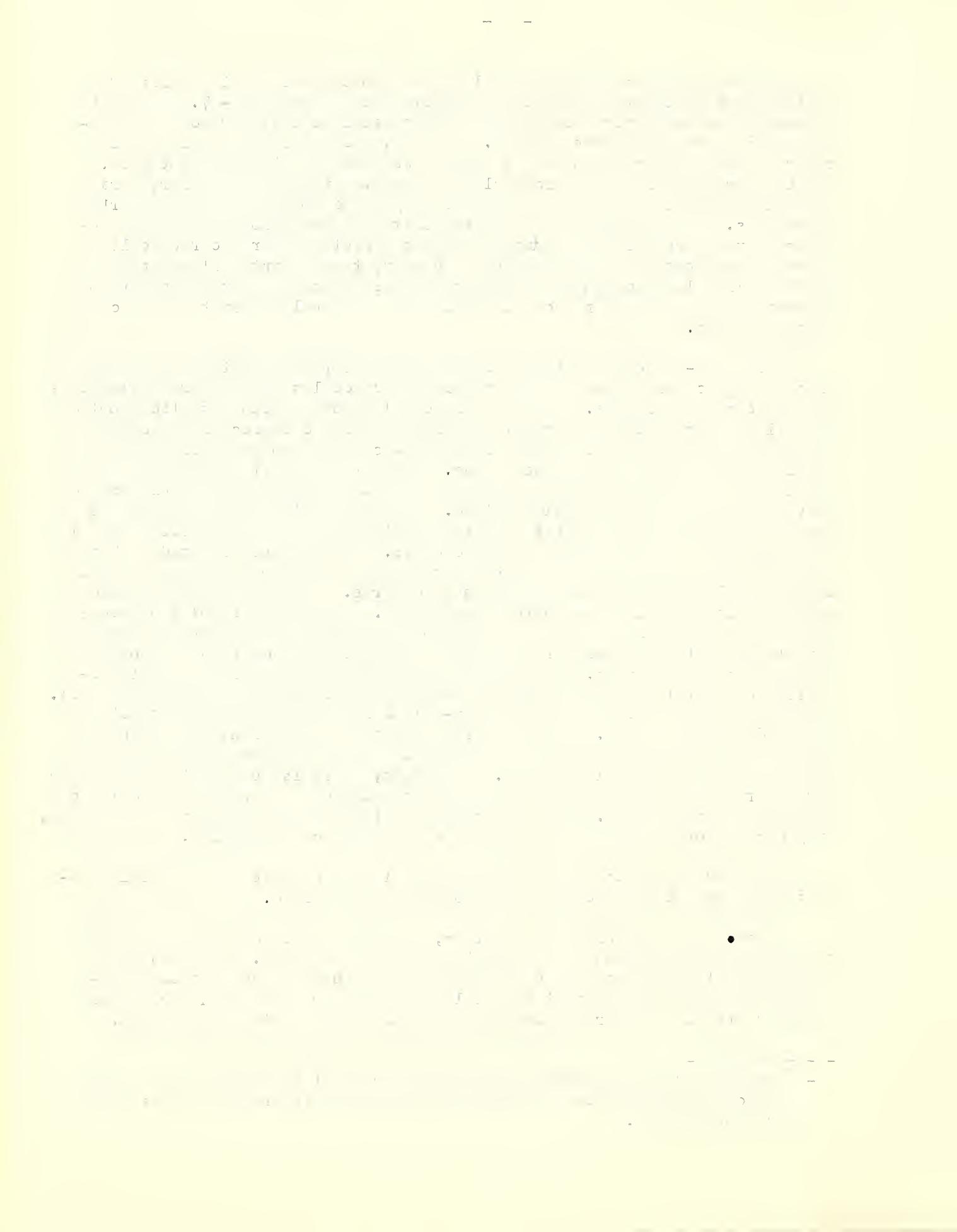
The Inter-Agency Committee adopted three progress reports of the Benefits and Costs Work Group which established principles for uniform evaluations of projects and programs. A procedure for plan formulation was also adopted after long discussions and delay. Although these procedures were adopted unanimously by AWRBIAC no effective provisions have been established by the Committee for a review of agency plans. Without some sort of review the Committee will have no assurance that the approved evaluation principles and procedures have been correctly applied. Evidence contained in the reports from the Water Use and Control Groups indicates that AWR procedures were not consistently followed in many specific cases. Agriculture proposed to the Benefits and Costs Work Group that a task group be set up to study the problems of application of the evaluation procedures. The work group approved the establishment of an economic review panel. The Tulsa Group\*also recommended to the AWRBIAC that such a panel be appointed to review the evaluation and plan formulation procedures used by the various agencies in developing their plans and programs. A disagreement arose in the AWRBIAC, largely because the Federal Power Commission representative opposed such a review panel. He made a counter proposal for an over-all board of review which was not accepted by the AWRBIAC. After several months of discussion and failure of a task group to agree on the FPC procedure, AWRBIAC decided at the June 1953 meeting to drop the whole subject. Therefore, there is no effective machinery for assuring that the evaluation procedures adopted have or will be followed by the various agencies. Unless the same criteria and procedures are followed, projects cannot be compared with regards to economic feasibility.

Many more examples of important physical and economic coordination problems for which no solution has been found could be cited.

Some of the participating agencies, especially the Corps of Engineers, claim that coordination and integration is being effected. This can be explained only by either a lack of understanding of the problems of inter-agency planning or an attempt to shield and maintain present uncoordinated going programs. Neither reason is defensible on the part of any agency.

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\* - The "Tulsa Group" consists of full time personnel employed by the various participating agencies and located in Tulsa. This group performs staff work for AWRBIAC.



Guideline B

The Department of Agriculture has taken the position for the past year that no authorizations should be requested in the AWR report. It has been apparent to the Department for that long that considerations called for in Guideline A could not be effected under the existing organization and procedures and hence there would be no more of a basis for assigning high priority to any project or program than existed prior to creation of AWRBIAC. The Department felt that to request authorization for any project or program in the AWR report would infer a degree of interagency sanction for which there was no basis and which did not in fact exist.

Some agencies have insisted that authorizations should be requested and in fact have submitted lists of projects apparently for the purpose of receiving the sanction of the Committee for authorization. Inspection of the lists reveal that they are scattered projects selected on the basis of time spent in studying them, to some extent their economic feasibility determined by questionable methods, local pressures, and other considerations apart from some of the essentials of good plan formulation. They were selected ahead of and entirely apart from any possible AWR plan.

Some of the participating agencies may be justified in taking the position that they can consent to a request for authorization of any project which does not directly conflict with their own particular sphere of activities. To those agencies then, interagency coordination simply becomes a matter of protecting agency interests and programs. It is not possible for the Department of Agriculture to take this view. In the first place, and in the narrower sense, the broad scope of activities of the Department through its programs of education, research, technical assistance, credit, forestry, waterflow retardation, and conservation automatically involves it in virtually all activities connected with land and water resources development. Much more important and in the broader sense, the obligations of the Department of Agriculture to American Agriculture and to the general public in the matter of agriculture's production of food and fiber compel the Department to carefully consider the agricultural feasibility of land and water resource activities of the Federal government.

A representative of the Department of Agriculture served on the task group assigned the problem of determining criteria for establishing priorities of projects. This task group failed to reach agreement because the Corps of Engineers representative would not agree to a consideration of proviso clause projects in the establishment of priorities. Agriculture felt that it was not possible to work out priorities unless all projects affecting the resources of the area were considered at one time.

The term "high priority" project should be given further definition at the national level. AWRBIAC has not adopted criteria for placing projects in priority classifications. Some approaches to the problem have been made. For example, the Corps introduced, and AWRBIAC adopted, the idea of "categories" of projects, Category I being the projects which "investigations have found to be feasible and desirable to schedule and carry out within a reasonably short future period of time"; Category II, those which "should not be



scheduled and carried out within the reasonably near future, but may deserve further consideration and study at some time in the future in light of changing conditions"; and Category III, those which "have been considered but show no promise..." Attempts were made to set up criteria for placement in the categories but these attempts were not successful.

To some, the adoption of the "Green Book" meant that priority would be based largely on economic considerations and the paragraph on page 14 would be the guide to establishing priority. This paragraph states: "Therefore a ratio of project benefits to project costs constitutes the proper measure of effectiveness of use of the Nation's resources insofar as the use of such resources for project purposes is concerned." This is not acceptable to agencies whose developments can not be evaluated monetarily, nor to those whose developments result in low benefit-cost ratios.

Some have been willing for priority to be determined by State interests.

To others, priority can only be determined on the basis of fulfillment of a need for the product of the development. Thus, any project having for its purpose the production of cereal grains might at this time have a low priority.

Others maintain that before priority can be assigned to any project, consideration must be given to the proportioning of expenditures to be made between (1) protection of a deteriorating resource (such as the soil), (2) reclaiming a resource (such as some of the forests), and (3) developing new resources now lying idle but not deteriorating, as by drainage, flood control, and irrigation.

In the absence of national guides and the tendency of all agencies to attach "high priority" to the things it builds or to the things it does, there is little possibility of having interagency agreement on "high priority projects."

Until AWRBIAC can determine the criteria for priority of projects and until there can be genuine integration and unified treatment of background information and assumptions pertaining to the resources of the basins, the Department of Agriculture must continue to recommend against requests for authorization in the AWR report.

#### Guideline C

During the latter part of 1950 and the entire year of 1951, the AWRBIAC discussed and debated the subject commonly known as "proviso clause projects" on the interpretation of the section of the Flood Control Act of 1950 authorizing the Arkansas-White-Red Inter-Agency Committee which states as follows: "That Federal projects now constructed and in operation, under construction, authorized for construction, or projects that may be hereafter authorized substantially in accordance with reports currently before or that may hereafter come before the Congress, if in compliance with the first section of an act entitled, An Act authorizing the construction of certain public works on rivers and harbors for flood control, and other purposes,



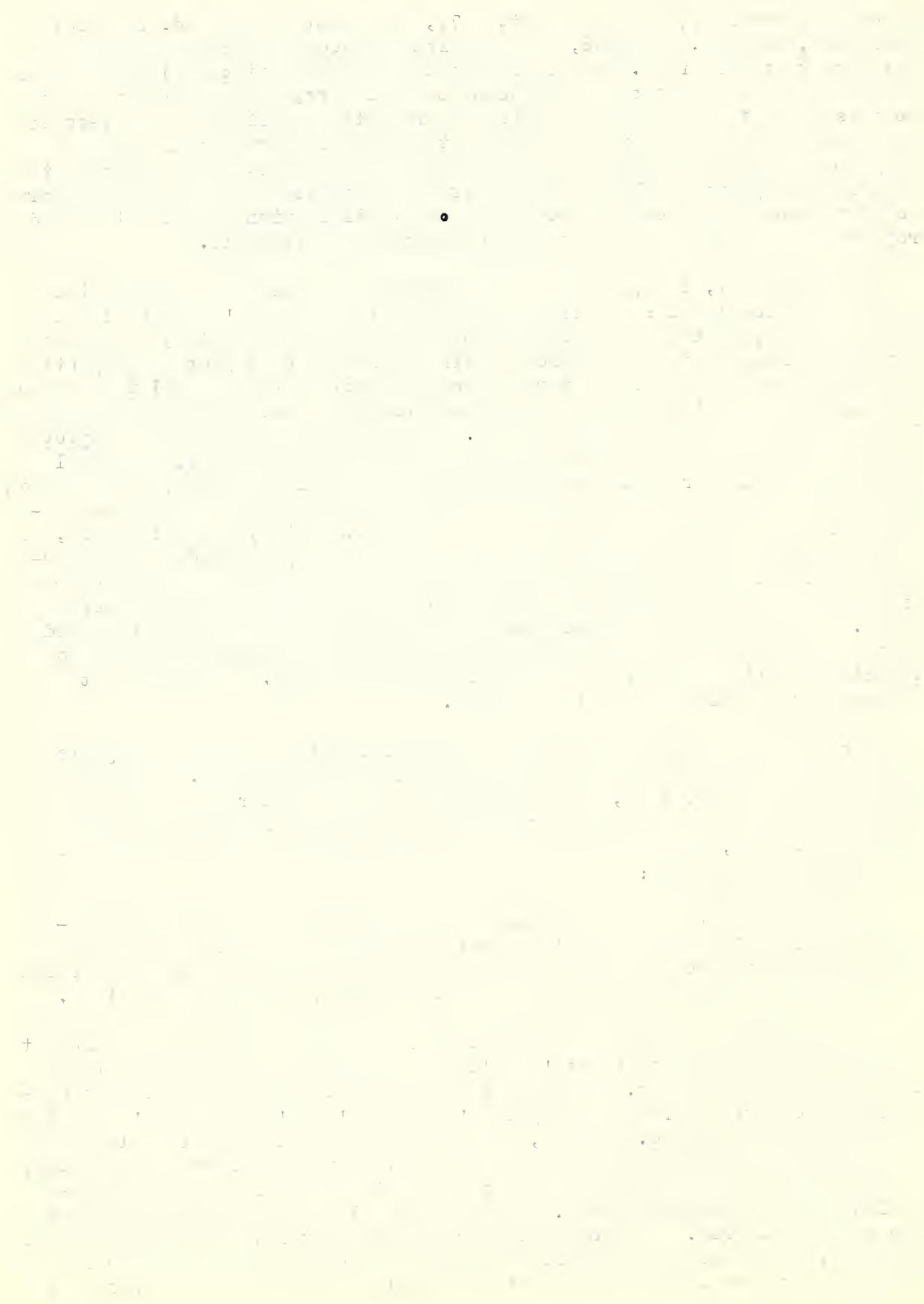
approved December 22, 1944 (58 Stat. 887), shall not be altered, changed, restricted, delayed, retarded, or otherwise impeded or interfered with by reason of this paragraph." Some members of AWRBIAC, particularly the States of Louisiana and Arkansas and the Corps of Engineers, have interpreted the above as preventing any consideration of projects authorized by Congress or recommended by the sponsoring agency (but not yet constructed) in the AWR study while others, mainly the Department of Agriculture, have argued that authorized projects should be given thorough consideration in the AWR report including recommendations for modification or elimination of the authorized project if the survey indicates such changes to be desirable.

On January 17, 1952, the AWRBIAC adopted the following interpretation of the "proviso clause": It is the interpretation of the 'proviso clause' by the AWRBIAC, that in the preparation of a comprehensive plan, it may be feasible to recommend modification or elimination of a project or projects now authorized to provide greater public benefits. Such feasibility would be determined by a restudy of the authorized project or projects through established AWRBIAC coordination procedures. Restudy of any authorized project would be made only upon request of an affected State or States, a Federal agency or agencies primarily concerned or a combination thereof, all of which have representation on AWRBIAC, and when sound preliminary information submitted to AWRBIAC by the herein designated State, States, Federal agency, or a combination thereof, indicates that the restudy is justified. The determination of the justification of the request for a restudy will be made by the AWRBIAC by reference to the work group or work groups concerned for action." Shortly after the adoption of the above, the question was raised as to whether or not the interpretation applies to heretofore recommended projects as well as authorized "proviso clause projects." This was not answered for a period of about 10 months.

During this period several discussions were held as to what projects and programs should be considered as "proviso clause projects." During the month of October, 1952, the Department of the Interior and the Corps of Engineers submitted their lists of "proviso clause projects." On November 13, 1952, the Department of Agriculture submitted to the AWRBIAC the following memorandum:

"The Department of the Interior and the Corps of Engineers have submitted lists of 'Provisc Clause' projects which are considered by those agencies to be subject to procedures and treatment in accordance with action by the Committee on the subject at Joplin, Missouri, on January 17, 1952.

"Very early in the deliberations of the AWRBIAC I stated that I did not believe that the 'Proviso clause' applied to programs or projects of the Department of Agriculture. This by no means infers that the Department considers any of its programs or projects 'protected' or 'untouchable' as far as the AWRBIAC is concerned. Rather, it means that the Department feels that the Committee should consider all of the Department's programs and projects, as well as those of all other agencies, without distinction, in the preparation of a comprehensive plan. That is the only way a truly coordinated plan can be prepared. I also stated very early, that if, as a result of the AWR study, the Committee found it desirable to recommend modification of a program or project of the Department previously authorized by Congress, or



which had been submitted to Congress for approval, the Department of Agriculture would agree to the inclusion of such a recommendation in the AWR report. If the Committee felt that the Secretary of Agriculture should make a recommendation for such modification to Congress apart from the AWR report I am sure that he would give favorable consideration to that also. The Department of Agriculture feels that such an attitude and concept is essential to the preparation of a coordinated, comprehensive basin plan.

"As a matter of review of information submitted to the Committee previously, the following information is listed for waterflow retardation survey reports of the type ordinarily submitted to Congress for authorization under flood control legislation.

"The Grand (Neosho) has been submitted to Congress for authorization. The Washita has been authorized. A review report has been prepared and may be submitted to Congress before the AWR report is completed. Fountain River, Upper White, and Lower Arkansas surveys are completed and reports are being processed. They may be submitted to Congress before completion of the AWR report.

"I repeat, the Department of Agriculture takes the position that the areas covered by these reports should receive the same consideration under AWRBIAC procedures as other areas in the AWR."

On November 24, 1952, the Tulsa Group presented a paper to the Committee entitled "Treatment of 'Proviso Clause Projects' on the AWR Plan." After a lengthy discussion on the paper, the AWRBIAC adopted the following statement: "The action taken by AWRBIAC on 'Proviso Clause Projects' at Joplin, on January 17, 1952, is supplemented as follows: Projects constructed, under construction, authorized for construction or recommended for construction under the provision of the Flood Control Act of 1944 and authorized prior to the completion of this report will be recognized as projects in being and as such considered a part of the over-all AWR plan. Any modification of such projects shall be in accordance with procedures previously established by AWRBIAC. In connection with these 'proviso clause projects' they will be appropriately designated as such in the report and a statement made to the effect that such projects have not been subjected to reanalysis and re-evaluation and approval by the AWRBIAC." The Department of Agriculture voted for the above with mental reservations since the statement would allow agencies and AWRBIAC to give very little or no consideration to re-analysis and reevaluation of "proviso clause projects."

On January 15, 1953, the Department of Agriculture requested AWRBIAC for restudy of Corps of Engineers Millwood Reservoir, Little River, Arkansas, in accordance with AWRBIAC procedure of January 17, 1952 (Appendix H, Minutes of Informal Session January 15, 1953). The request for review was based on the fact that the reservoir would inundate areas of high timber production potential and one of the large saw mills in the area would be put out of business. The AWRBIAC referred the restudy to the Tulsa Group who in turn



referred it to a special task group. Based upon available information the Department of Agriculture made a preliminary analysis which indicated that negative benefits were incorrectly calculated and were grossly understated. Their calculations show that negative benefits would be eight times those calculated by the Corps (Appendix B, Minutes of Formal Session, March 25, 1953.). The Corps of Engineers has effectively blocked the restudy of this project. The Department of Agriculture has not been able to obtain detailed information from the Corps on the agricultural production used in the Red River area from which most of the benefits are alleged to accrue. As far as can be determined, these benefits were merely taken to be equal to costs. The costs have been raised a number of times by the Corps since their original evaluation was made, and the benefits have been raised proportional to increases in the costs. The Department of Agriculture has proposed that the representatives of the task group set up to restudy the project make an on-the-spot inspection trip of the area to appraise production possibilities in the reservoir site. The Corps' representatives have opposed such a trip and have proposed that a settlement be attempted on the basis of individual conferences between the Corps of Engineers and the Forest Service representatives. This is contrary to the procedures adopted by the MRBIAC and is not conducive to the preparation of a coordinated interagency report. Future action on the restudy is not known by the Department of Agriculture, since much effort is being made by the Corps of Engineers to block further reanalysis and reevaluation of the project.



## PART II

### PROGRESS TO BE EXPECTED UNDER THE CONDITIONS OF PRESENT "GROUND RULES, METHODS, AND PROCEDURES"

#### General

In view of the lack of progress to date on many phases of the study, especially uniform treatment of information and assumptions and genuine integration of various plans, very little progress can be expected in the remaining period (June 30, 1955) of the AWR study.

The AWRBIAC has adopted pages and pages of "paper" procedures. At least half of the procedures were adopted to accomplish something which a previously adopted procedure failed to accomplish. Thus, it is fairly easy to show progress on paper. Experience shows that actually the established procedures were not followed to any great extent and will not be followed to any extent in the future under the present organization. There are several reasons for this. Administrative channels fail because of lack of interest and sympathy with the objectives, lack of funds and personnel in some cases, and perhaps mainly because the procedures in many instances are unrealistic or so complicated they can not be clearly understood. There has been a general lack of administrative unity of purpose from the Washington level down. This applies pretty much to all participating agencies.

The omission of important discussion and controversial issues in the minutes of meetings creates much confusion and lack of effective action by the Committee. In many instances, an erroneous impression of complete agreement is created. There have been many attempts (some successful) to prevent members from inserting important statements in the minutes. What is even more serious, there have been attempts to prevent accurate information from being presented to AWRBIAC so that the Committee could become adequately informed concerning the work.

Because of the vital interest of agency and State people to include their plans, many attempts are made to influence key members to agree with their plans and thereby place pressure on the AWRBIAC to adopt the plans. This is a problem that must be recognized and given consideration in all phases of planning. A good example of this in the AWR is the trans-mountain diversion of water from the Colorado Basin to the Arkansas Basin proposed by the Bureau of Reclamation. There is definite resistance on the part of the Bureau and certain people in Colorado to having the merits of this proposal considered by AWRBIAC, yet there is insistence that the Committee consider it in place and build all other plans around it. This appears to be a deliberate attempt to obtain the endorsement of the Committee for the proposal without affording the Committee an opportunity of considering it on its merits.

These and many other factors have tended to create an atmosphere of confusion, animosity, and distrust, which would seem to preclude much future progress in accordance with Guidelines A, B, and C.



Guideline A

As has been pointed out previously, there is a vast body of material available to the AWRBIAC and a fairly good set of plan formulation procedures adopted. Yet assuming the material was unbiased, gave complete coverage and were accurate to the last detail, who would give it the "genuine integration" and "unified treatment" called for in Guideline A? Every member of the AWRBIAC and every administrator of a participating agency knows that there is some limitation of public funds that will be available for work in the AWR in the next several years. Some feel that their particular programs have not received a fair share of such funds in the past. Others feel that a good appraisal of their programs in light of the actual needs of the basins would result in curtailment of their activities. Some are willing to "trade out" on the basis of their own programs remaining virtually unmolested. Few, if any, of the members of the AWRBIAC are convinced that their interests will receive fair treatment if laid unreservedly and openly before the Committee. Yet, "genuine integration" and "unified treatment" is not possible otherwise.

There is no final arbiter and no administrative enforcement across the board in AWRBIAC. Who can arbitrate honest differences? Who can or will "crack down" administratively on an agency who is willfully violating policies, principles, and procedures adopted by AWRBIAC? There has been an almost unlimited amount of indecision, delaying tactics, and putting off decisions. Who will force decisions and meet all these problems? Three years' experience shows they have not been met and there is no reason to expect that they will be under the present arrangement. Referral of problems to Washington and to the Federal Inter-Agency River Basin Committee as called for in the procedures has proved virtually fruitless.

Under the conditions prevailing, it appears that each member of AWRBIAC must continue placing utmost emphasis on his own particular interest, with little inclination or possibility of attempting to consider "genuine integration" and "unified treatment."

A good example of the problems referred to above is the special hydrologic and economic study of Pond Creek. The Department of Agriculture placed all its data and procedures into the study in an unreserved and cooperative manner. Although intensive efforts of a large number of technicians were employed for several weeks on the study, directed largely toward the examination of Agriculture's data and procedures, no serious errors or inadequacies were found in these data and procedures. As a matter of fact, the technicians verified many of the procedures to their satisfaction. Yet, in spite of the agreement among the technicians of all agencies, the Corps of Engineers and the Bureau of Reclamation presented to AWRBIAC on September 24, 1952, a very severe indictment of the procedures used by the Department of Agriculture. Since the Corps and Bureau had furnished most of the technicians employed on the Pond Creek study, and since these technicians had verified many of the procedures so severely criticized, one can only conclude that the indictments were based on other than technical grounds.



Guideline B

This guideline calls for "authorization of specific projects when such projects are of high priority and are supported by sufficient justification." "High priority" with respect to what and who will determine it? Have we national policy criteria by which to make such a priority rating? Is AWRBIAC supposed to establish such criteria? National policy on flood control seems to be that the Government will provide flood control when the "benefits exceed the costs." Yet no national standards exist officially for making this determination, except Budget Bureau Circular A-47, which was adopted by AWRBIAC but is not being followed. Are all flood control projects with favorable benefit-cost ratio of high priority? There are hundreds of millions of dollars worth of such projects authorized in the AWR now.

What is the expected need for increased agricultural production in the future? Is the increased production of the type that can be most economically obtained through irrigation and drainage in the AWR? Are all irrigation and drainage projects that are economically feasible (by whatever standards) in AWR of high priority? Both the Corps of Engineers and the Bureau of Reclamation have submitted lists of projects to AWRBIAC which they consider to be "feasible and desirable to schedule and carry out within a reasonably short future period of time." Are these the projects of "high priority" that should be recommended for authorization? The Department of Agriculture member of AWRBIAC has neither adequate criteria nor adequate information concerning the projects to make a determination of "high priority" or "sufficient justification." There is no prospect that he will have under the present arrangement. Although it is theoretically easy to obtain information in a cooperative interagency effort and great manifestations of complete frankness and willingness to supply information are made, nothing can be as impenetrable as the bureaucratic barrier which a government official can place around his files when he wants to.

Although AWRBIAC has adopted several procedures relating to evaluation principles, effective provisions have not been established for review of agency plans to insure that the approved principles have been correctly applied. Evidence contained in the reports of the Water Use and Control Groups indicates that AWR procedures have not been consistently followed in many cases. A special task group set up to study the problem proposed establishment of an economic review panel. The Tulsa Group recommended that the panel be appointed, but Committee approval has been continually postponed.

There is no prospect for meeting Guideline B in AWR in accordance with adequate procedures of plan formulation. As pointed out in I B, there is little or no possibility of having interagency agreement on high priority projects in the absence of national guides and the tendency of agencies to attach high priority to those things they build or to the things they do.



Guideline C

Under Guideline C, Part I of this report, it has been shown that AWRBIAC has made no investigation of proviso clause projects. AWRBIAC on November 24, 1952, adopted the statement, "Projects constructed, under construction, authorized for construction or recommended for construction under the provision of the Flood Control Act of 1944 and authorized prior to the completion of this report will be recognized as projects in being and as such considered a part of the over-all AWR plan." This makes it evident the AWRBIAC has no intention of investigating proviso clause projects. This is further borne out by the fact that the schedule of future work outlined and adopted by AWRBIAC up to and including submission of the final report makes no provision for investigation of proviso clause projects. This schedule of work provides only for compilation and review of material already submitted, preparation and review of preliminary drafts of the report, and preparation and submission of the final draft by December 31, 1954.

The Corps of Engineers has listed 213 projects as falling within the "proviso clause" category. The Bureau of Reclamation has listed additional ones. The Department of Agriculture questioned just one of these projects as far back as January 15, 1953, under the AWRBIAC adopted procedures and to date (August 10, 1953) has not been successful in getting a restudy of the project initiated in accordance with the adopted procedures. An ultra-conservative understatement could be made to the effect that it is extremely unlikely that the report will "recommend modification or elimination of projects already authorized by Congress but not yet constructed, if the survey indicates such changes to be desirable," as called for in the guideline set forth in the Assistant Director's letter to the Secretary. Certainly no such recommendation will be contained in the report if it means the reduction, curtailment, or elimination of any project. Any future plan for AWR formulated under present arrangements will be built around proviso clause projects and not very well coordinated with them at that.

PART III

MATTERS HINDERING PREPARATION OF AN ADEQUATE AWR REPORT

Uniform national policies with respect to land and water resources development do not exist even after lengthy and intensive study at the Washington level, nor is central authority exercised to make and enforce interagency policy decisions. Several attempts have been made to set up uniform policies and procedures. Examples are the Green Book, Budget Bureau Circular A-47, and work of the Water Resources Policy Commission, but to date none of these attempts has led to expeditious and positive results. The present organization is not geared for a speedy and able solution of the many problems. In many cases problems of national scope have been delegated to the field for solution. For instance, the questions of secondary benefits, cost allocation, and reimbursement should never have become controversial issues within AWRBIAC. Standard outlines of work to be done in basin planning as well as uniform procedures and policies should be developed and adopted at the Washington level in order that planning work in the various basins of the United States will be consistent and comparable.



Consistency between river basins is essential in all planning of land and water resource development.

Authority of the AWR study under the Flood Control Act of 1950 has led some persons, concerned with the work, to question whether the actual objectives of the survey extend beyond flood control, or at best, beyond major water resources structures. The result has been that we have been led into consideration of flood control aspects all out of proportion to the relative importance this work assumes in the over-all plan. Also, some State agencies have refused to cooperate effectively in the study because they felt that their efforts would be largely wasted inasmuch as they were not directly pointed toward promotion of major water use and control projects. To be truly effective the comprehensive plan should be independent and controlling of all functions.

AWRBIAC does not have adequate criteria for establishing how, when, and to what extent the resources should be developed or protected. There is lack of a policy statement on national needs for the products of natural resources development which can be broken down and analyzed along with regional needs. There is also no indication of national policy with respect to the relative weights to be given to national versus regional needs when the two are **not compatible**. For instance, partial studies in the AWR to date indicate that it is practical to assume that present agricultural production could be increased 50 to 100 percent on substantially present acreages by 1975. Yet there is opportunity for a limited amount of irrigation and a substantial amount of drainage. This type of development would contribute materially to local and regional economy but may not be required to meet the national need for agricultural production, and may cost considerably more, particularly in public funds, than increasing production on present acreages. How does AWRBIAC weigh these two objectives and attain the proper balance between the two?

#### PART IV

#### RECOMMENDED CHANGES IN GROUND RULES, METHODS, AND PROCEDURES

In the initial work of Inter-Agency Committees, careful consideration should be given to outlining precisely the status of States in the work of the Committee. The AWRBIAC considers the States a part of the Committees and includes them as voting members. Questions have been raised, however, concerning the duties and responsibilities of States in basin planning and as to whether or not, under the resolution of FIARBC and the President's directive setting up the AWRBIAC, the States should have voting privileges along with the members of the Federal agencies or whether the States should serve in an advisory capacity. Clarification of the status of States is highly desirable in carrying out various phases of planning. State people have been given certain coordination tasks in AWR when it is questionable whether they want or should be asked to assume such responsibilities. Certainly they have no means at hand to enforce such decisions as they may make.



Many prolonged delays have occurred in the AWR study because of the lack of prompt and decisive action by the Committee. In addition, some phases of the study have been reworked because of inability of the Committee to make prompt and definite decisions on procedures and methods. This has been brought about largely by members not being in the position to spend sufficient time to acquaint themselves thoroughly with such matters. This was particularly true prior to initiation of monthly meetings of AWRIAC. As a result, it has been necessary for the members to relegate tasks to subordinates who are not authorized to speak for the members, to depart from agency policies, or to commit his agency.

The FIARBC resolution that the AWRIAC would only take action on those matters wherein there was unanimous agreement is very undesirable. Under this veto procedure, badly needed decisions on important matters are being postponed indefinitely. In some cases even FIARBC decision may never be expected. Too many vital decisions are being put off. If it were known that some decision would be made, contestants would be forced into mustering their arguments and solutions would be forthcoming. The expedient of delay has become the last (and very useful) resort of those who know they will lose their arguments.

Conferences to date on the type of report to be prepared by AWRIAC indicate that there are many ideas of types of material to be presented, format, length of report, etc. FIARBC could be very helpful on this matter by preparing guidelines to be followed by the Committee in developing the report. Differences in agency desires and objectives will make it difficult to prepare a report which will be satisfactory to the people involved. Every agency is interested in preparing a report which will highlight its own particular program.

Due to traditional patterns followed by agencies in attaining field review and clearance of reports, there is a reluctance on the part of the agencies to depart from routine procedures and conduct work on an inter-agency basis. There has been no effort on the part of some agencies to perform on a work group basis at field level. Considerable time and money was wasted in AWR because the Corps of Engineers and Bureau of Reclamation spent over a year compiling and distributing individual agency reports. The material contained in these reports was later hastily rearranged and thrown into Water Use and Control Group reports with little opportunity for interagency review or coordination. As a result, some sort of review and investigation will have to be instituted if AWRIAC is to satisfy itself as to the adequacy of the data, the procedures of plan formulation followed, and the extent of coordination achieved.

Consideration should be given to whether or not the local people of the area should have an opportunity to review the general recommendations of the report. How this may be done is a problem.

Leadership in such an undertaking as the AWR study should not be permanently placed in any one agency or rotated among agencies because agency interest and experience is limited to only a small part of the over-all problem of basin planning. If for no other reason, natural agency interest and loyalty prevents the proper discharge of the duties of chairmanship. The development of honest agency differences and friction is inevitable.



Experience in AWR study to date shows that many agencies are reluctant to depart from their established procedures and policies. This is partially brought about by a lack of national policies and objectives to guide regional resource development. Without these guidelines, the agency personnel have adhered to the policies and objectives of their individual agencies. This makes the problem of coordination of plans very difficult if not impossible.

Three years' experience of the AWRBIAC indicate that the present organization for carrying out the directives of the Congress "with a view to developing comprehensive, integrated plans of improvement" for the Arkansas-White-Red River Basins is grossly inadequate. In attempting to complete a plan for the basins as outlined in the Flood Control Act of 1950, conflicting agency policies and procedures have been encountered which have made achievement of effective coordination and integration impossible. As a result, the planning effort has degenerated into a process of listing possible projects and programs without adequate consideration of basic problems and needs. In many respects, basic data were not available, or were inadequate, to demonstrate the desirability of including in the plan certain projects either from a hydrologic or economic standpoint. Plans for water use and control functions in the AWR, as they are now being developed, represent a compilation of projects and programs submitted by the various construction agencies largely on an independent basis.

A comprehensive, coordinated plan for land and water resource development cannot be achieved by simply adding together agency proposals. Such action will fail to arrive at a workable integrated plan and would be a disservice to the Nation.

A poorly integrated and poorly conceived plan may be worse than no plan at all. No acceptable degree of coordination can be achieved by a simple overlay process. The obstacles to the present AWRBIAC approach are too far reaching to be ignored, and they cannot be overcome unless there are drastic changes in the basic organization and authority.

The purposes for which the AWR study was organized were conceived in the interest of the national welfare and in recognition of the potential demands upon the Nation's resources. The problems involved are real and highly important. Many major problems have become deeply rooted in the regional economy. The basic resources of the AWR Basins are largely agricultural in nature. Increased demands for production of food and fiber in the future may well push agriculture to the full limit of its productive capacity. Therefore, an error of judgment, such as the initiation of a poorly conceived, uncoordinated and inequitable plan for resource development, could assume catastrophic proportions when projected into future decades. Concerted action is necessary to achieve the best solutions. In order that the considerable amount of funds and efforts already expended to date on the AWR study may be salvaged, it is recommended that the AWR study be reoriented and reorganized as follows:

The AWR study should be reoriented to place proper emphasis on needs, problems, and opportunities of the river basins. In developing these needs, problems, and opportunities, consideration should



be given to research and analysis of basic data which will help to outline specific problems, point out needs, both economic and physical, and indicate the ways and means for alleviating these problems and fulfilling the needs. Proviso clause projects should be held in strict abeyance for restudy and included only if they are found warranted as a sound and logical part of the plan.

The AWR study should not be regarded as a plan to end all plans, but should provide for a continuing planning activity. Planning is not a static function. The comprehensive plan for the AWR Basins cannot be compiled and then used as a guide without continual revision and rescheduling of the various elements of the plan as better information on needs and problems becomes available. The plan should set forth an order of development for 5 to 10 years at a time. The activity must be forward-looking with the idea of providing for developments in time to meet specific needs and alleviate problems before they become acute.

Specifically, planning must follow an orderly process. The initial step is a careful study of the area's basic problems and needs. Proposed solutions, based on the conservation and development of soil and water resources, should be formulated to solve as many of these problems and to meet as many of the needs as is practicable through this type of development. The solutions proposed must be the best alternatives available and they must be thoroughly coordinated and integrated for all functions. Likewise, developments should be timed so that a logical sequence is followed in their construction or initiation so as to insure maximum public benefits at minimum costs. Projects and programs must be planned so as to avoid duplication and overlapping of benefits.

As a first step in reorientation of the study, the objectives of the undertaking should be carefully and fully stated. These objectives would include a comprehensive and coordinated approach to land and water resource conservation and development, which should be adhered to, with particular emphasis on an over-all plan of basin development rather than on individual or agency projects or programs.

The next logical step would be to determine and analyze the problems. Some of the problems could be grouped as follows:

1. Lack of employment opportunities
2. Low incomes
3. Insufficient agricultural production
4. Soil and water losses
5. Flood hazards

The basic needs of the area and the Nation should be given careful consideration early in the study. Needs should be expressed



in terms of needs for kinds and quantities of products, services, etc., with special attention given to alternative opportunities for alleviating the problems and meeting these needs.

In the early planning stages, agreement should be reached as to relative importance of the problems and the order and magnitude of the proposed studies. This is necessary to obtain balance and efficiency and in integrating and coordinating the planning.

In order to attain the objectives of the study, to present the desired information clearly, and to aid in the efficient organization of the material to be presented, definite decisions should be made as to the scope of the report. It is recommended that the emphasis should be on the broad over-all aspects of a comprehensive plan rather than on the authorization of individual projects. Proposed developments should fit within the general plan to meet the needs and problems of the area. If specific feasible developments fit within this plan, have been properly coordinated and integrated, meet the needs, are properly timed, and appear in every way to be in the national and local interest, then such projects or programs might be recommended for authorization within the AWR report or as a supplement to it.

General problems and areas needing further study and scheduling should be considered. This part of the plan would outline the over-all direction that conservation and development would take after further study and integration by watersheds; it would indicate the study plan for development of areas where problems are urgent and where opportunities for development are greatest. When this is done, the priority would be indicated for the detailed studies necessary to develop the recommended coordinated and comprehensive plans for each watershed. This would provide for a continuing study of a number of areas, taking cognizance of changes in needs and opportunities with a view of ultimately providing for a complete basin conservation and development plan.

It is unrealistic to expect that an AWR Basins comprehensive, coordinated plan can be formulated under the present organization for the study. Such a plan can probably be developed only if the entire study is reorganized along somewhat the general lines indicated. A Commission should be appointed by the President to be responsible for continuing and completing the AWR study. The full time Chairman of this Commission would also become Chairman of AWRBIAC which would remain intact as a liaison unit and to assist the Commission as requested. Such a Commission should be provided with sufficient staff under the immediate direction of an executive director to enable it to function properly. The comprehensive nature of the study should be emphasized by the planning commission. This type of organization would overcome the difficulties now encountered by having the chairmanship in the hands of the Corps of Engineers. As the basic resources in the AWR Basins are largely agricultural in nature, it is impossible to achieve a coordinated approach under the Corps of Engineers chairmanship, where emphasis is placed on flood control. In this manner, water is completely disassociated with land use and planning and all other functions become incidental from their point of view.



The qualifications for commission members recommended by the Missouri Basin Survey Commission appear reasonable and it is suggested that these be followed in selection of the AWR policy commission.

The Chairman and the Commission should be empowered to take positive action to insure that planning progresses within the general framework of prescribed economic and hydrologic procedures without necessarily following policies and procedures of individual agencies.

It seems reasonable to expect that through reorganization of policy functions and reorientation of the study it would be possible to salvage much of the work that has already been done. The experience of AWR has clearly demonstrated the need for an over-all planning administration to make policy decisions, to guide the activities of the Inter-Agency Committee, and to render specific determinations in certain areas of committee disagreement. This Commission could outline the procedures to be followed and thus give a common objective for all the agencies to strive for.

The independent chairman or commission should have control of the budget for the over-all study. Apportionment among cooperating agencies should provide funds for all functions necessary for making an adequate investigation of resource problems so that each may proceed on the most efficient schedule. In this way, it would be possible for funds to be available for specific jobs as they arise. It would prevent piecemeal development and would provide for scheduling of various projects and programs to fit the coordinated basin plan. The budget required under such an arrangement would be materially less than that required by the agencies collectively under present procedures.

After reorientation and reorganization of the study, over-all planning would proceed as rapidly as possible toward establishing policy objectives, stating specific problems, and determining needs. However, as soon as the over-all study has proceeded to the point where a determination can be made that problems and needs of a certain area are of high priority, detailed pilot studies would begin on a selected area or areas. It is also assumed that prior to this step there would have been substantial agreement as to uniform hydrologic, economic and basic data methods and procedures to be used in evaluation and detailed planning. This procedure would make possible simultaneous prosecutions of both the over-all and intensive detailed phases of the planning effort with resultant savings in time and better utilization of technical personnel. Part of the AWR planning staff would be concentrated on the detailed study of the selected area or areas, while the rest of the staff continued actively on the refinement of the broad over-all phases of the basins plan. The purpose of this pilot study would be to complete detailed surveys, research, and analysis to the point where feasibility, coordination, and integration are firmly established.

It is not contemplated that such planning would go as far as the preparation of complete detailed construction plans but only to the point where benefits, costs, and operational calculations would be sufficiently



firm to use in the detailed studies of cost allocation, reimbursement, hydrology, agriculture, and the other phases necessary for the proper integration of the sub-basin plan. Experience gained on the pilot study would highlight technical problems that would have to be solved in order to carry detailed planning to other areas as priorities are established in the over-all planning phase. Such experience would help to refine objectives and sharpen up procedures. After resolution of such detailed problems and preparation of an acceptable sub-plan (plan for the selected area), steps would follow leading toward recommendations for authorization of actual construction of specific elements of the plan.

It is proposed that such detailed planning, coordination, and integration be centered on a high priority subwatershed. Sub-basins as the unit of planning are suggested only because it is recognized that much of the data compiled by the major construction agencies is on this basis. Agricultural data are not compiled in this form but in order to facilitate coordination of proposed developments with the major construction agencies, Agriculture would make every effort to rework and compile its data to fit such areas. If a successful plan could be formulated, a selected area would serve as an example for further work in other watersheds. Adopting this approach would mean that sufficient study, research, and investigations would have to be concentrated on this particular area to be sure that the plan is the best alternative, is comprehensive in scope, is fully coordinated and integrated with respect to needs, and is based on adequate agricultural, hydrologic, and economic data. This procedure would be in contrast to the present approach of asking for authorization of specific scattered projects without regard to integration with other functions. Unless the proposed procedure is followed, piecemeal authorization may result leading to another group of uncoordinated future proviso clause projects that will hamper desired long-time development.

